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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/537,517	06/03/2005	Markus Feuser	DE02 0290 US	3562

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NXP, B.V.
NXP INTELLECTUAL PROPERTY DEPARTMENT
M/S41-SJ
1109 MCKAY DRIVE
SAN JOSE, CA 95131

EXAMINER

SU, SARAH

ART UNIT	PAPER NUMBER
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2131

NOTIFICATION DATE	DELIVERY MODE
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06/24/2008

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ip.department.us@nxp.com

Office Action Summary	Application No. 10/537,517	Applicant(s) FEUSER ET AL.	
	Examiner Sarah Su	Art Unit 2131	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 June 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☒ Claim(s) 2-5 and 7-10 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 June 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>6/3/05</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Preliminary Amendment received on 3 June 2005, has been entered into record.

In this amendment, claims 1-7, 9-10 have been amended.

2. Claims 1-10 are presented for examination.

Priority

3. The claim for priority from PCT/IB03/05271 filed on 19 November 2003 is duly noted.

4. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Specification

5. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

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6. The abstract of the disclosure does not commence on a separate sheet in accordance with 37 CFR 1.52(b)(4). A new abstract of the disclosure is required and must be presented on a separate sheet, apart from any other text.
7. The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

Arrangement of the Specification

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
- (f) BACKGROUND OF THE INVENTION.
 - (1) Field of the Invention.
 - (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
- (g) BRIEF SUMMARY OF THE INVENTION.
- (h) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
- (i) DETAILED DESCRIPTION OF THE INVENTION.
- (j) CLAIM OR CLAIMS (commencing on a separate sheet).
- (k) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).

Appropriate correction is required.

8. The disclosure is objected to because of the following informalities:
 - a. in page 1 "Data processing device, in particular an electronic memory component, and encryption method related thereto" should read –Address encryption method for flash memories–;
 - b. in page 1, line 9: "such as for instance" should read either –such as– or –for instance–;

c. in page 1, line 19: “precisely these address buses are encrypted” should read –precisely with these address buses being encrypted–;

d. in page 2, line 2: “invention so to” should read –invention to–.

Appropriate correction is required.

Claim Objections

9. Claims 5 and 10 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim.

Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Claim 5 recites a microcontroller that comprises at least one data processing device of claim 1. Claim 10 recites a use of at least one data processing device of claim 1. These claims do not further limit the device recited in claim 1.

10. It is noted that claims 3-4 and 10 contain the symbol “-“ which is nonfunctional. The examiner requests that these be removed.

11. Claims 2-5, 7-10 are objected to because of the following informalities:

a. In claims 2-4, line 1: “A data processing device” is unclear if it relates to “A data processing device” (claim 1, line 1);

b. In claim 3, line 3: “the input value” lacks antecedent basis;

c. In claim 3, line 4: “the return value” lacks antecedent basis;

d. In claim 5, line 2: “at least one data processing device” is unclear if it relates to “A data processing device” (claim 1, line 1);

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- e. In claims 7-9, line 1: "A method" is unclear if it relates to "A method" (claim 6, line 1);
- f. In claim 8, lines 1-2: "the function $f_i(a)$ lacks antecedent basis;
- g. In claim 10, line 1: "at least one data processing device" is unclear if it relates to "A data processing device" (claim 1, line 1).

Appropriate correction is required.

Drawings

12. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the data processing device and memory component (claims 1-5 and 10), EPROM, EEPROM, flash memory (claim 4), smart card controller, reader IC, crypto chipset (claim 10) must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

13. It is noted that the applicant has not included reference characters in the drawings or a corresponding detailed description of the drawings in the disclosure using such reference characters. See 37 CFR 1.84(p). The examiner requests that these be added in order to clearly define the invention. No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure

is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

14. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

15. Claims 2-3 and 7-8 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Claims 2-3 and 7-8 describe a function that is used to create a dependence and is one-to-one but the description fails to define this function; thus, one skilled in the art would not be enabled to accomplish the claimed invention.

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16. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

17. Claims 1-3, 5-7, 9-10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

18. Regarding claims 1-2, 5-7, 9-10, the phrase "in particular" renders the claim indefinite because it is unclear whether the limitation(s) following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

19. Regarding claims 1 and 6, "i.e." renders the claim indefinite because it is unclear whether the limitation(s) following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

20. Claim 3 recites the limitation "the input value" in line 3. There is insufficient antecedent basis for this limitation in the claim.

21. Regarding claim 10, the phrase "for example" renders the claim indefinite because it is unclear whether the limitation(s) following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

22. Claim 10 provides for the use of at least one data processing device, but, since the claim does not set forth any steps involved in the method/process, it is unclear what method/process applicant is intending to encompass. A claim is indefinite where it merely recites a use without any active, positive steps delimiting how this use is actually practiced.

Claim 10 is rejected under 35 U.S.C. 101 because the claimed recitation of a use, without setting forth any steps involved in the process, results in an improper definition of a process, i.e., results in a claim which is not a proper process claim under 35 U.S.C. 101. See for example *Ex parte Dunki*, 153 USPQ 678 (Bd.App. 1967) and *Clinical Products, Ltd. v. Brenner*, 255 F. Supp. 131, 149 USPQ 475 (D.D.C. 1966).

Claim Rejections - 35 USC § 101

23. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 6-9 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

The claims are directed to a judicial exception; as such, pursuant to the Interim Guidelines on Patent Eligible Subject Matter (MPEP 2106)), the claims must have either physical transformation and/or a useful, concrete and tangible result. The claims fail to include transformation from one physical state to another. Although, the claims appear useful and concrete, there does not appear to be a tangible result claimed. Merely encrypting (as in claims 6-8) and securing (as in claim 9) would not appear to be sufficient to constitute a tangible result, since the outcome of the encrypting and securing steps have not been used in a disclosed practical application nor made available in such a manner that its usefulness in a disclosed practical application can be realized. As such, the subject matter of the claims is not patent eligible.

Claim Rejections - 35 USC § 102

24. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

25. Claims 1-7, 9-10 are rejected under 35 U.S.C. 102(b) as being anticipated by Candelore et al. (EP 0908810 A2 and Candelore hereinafter).

As to claims 1 and 6, Candelore discloses a system and method for block chaining and block re-ordering, the system and method having:

a plurality of access-secured sub-areas (i.e. block), in particular a plurality of access-secured memory areas, each having at least one assigned parameter in particular address (i.e. address line), characterized in that the parameter of at least one sub-area may be encrypted (i.e. hashed, keyed) only in certain areas, i.e. in dependence on at least one further sub-area (col. 24, lines 6-11, 15-17).

As to claims 2 and 7, Candelore discloses:

characterized in that the parameter to be encrypted may be encrypted in dependence, in particular as function, on at least one parameter of the further sub-area (col. 24, lines 12-15; col. 25, lines 12-18).

As to claim 3, Candelore discloses:

characterized in that the input value to the function and/or the return value from the function is more than one bit wide (col. 21, lines 39-41).

As to claim 4, Candelore discloses:

characterized in that the memory component takes the form of an E[rasable]P[rogrammable]R[ead] O[nly]M[emory], an E[lectrically]E[rasable]P[rogrammable]R[ead]O[nly]M[emory] or a Flash memory (col. 19, line 58; col. 20, lines 1-3).

As to claim 5, Candelore discloses:

A microcontroller, in particular a smart card controller, comprising at least one data processing device as claimed in claim 1 (col. 22, lines 41-44, 57-58).

As to claim 9, Candelore discloses:

characterized in that the access-secured sub-areas, in particular the access-secured memory areas, are secured separately (col. 25, lines 12-18).

As to claim 10, Candelore discloses:

Use of at least one data processing device, in particular at least one electronic memory component, as claimed in claim 1 in at least one chip unit, in particular in at least one smart card controller, in at least one reader I[ntegrated] C[ircuit] or in at least one crypto chipset, for example in the field of audio and/or video encryption (col. 1, lines 57-58; col. 2, lines 11-15).

Claim Rejections - 35 USC § 103

26. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

27. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

28. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Candelore as in claim 7 and in view of Toh et al. (US 2002/0048372 A1 and Toh hereinafter).

As to claim 8, Candelore does not disclose:

characterized in that the function $f_i(a)$ is one-to-one.

Nonetheless, this feature is well known in the art and would have been an obvious modification of the teachings disclosed by Candelore, as evidenced by Toh.

Toh discloses a system and method for generating and utilizing a universal signature object for digital data, the system and method having:

characterized in that the function $f_i(a)$ is one-to-one (0012, lines 16-18).

Given the teaching of Toh, a person having ordinary skill in the art at the time of the invention would have readily recognized the desirability and advantages of modifying the teachings of Candelore with the teachings of Toh by using a one-to-one function. Toh recites motivation by disclosing that using a one-to-one hash function allows for each hash number to generate one data file so that changes in the data can be detected (0012, lines 17-20). It is obvious that the teachings of Toh would have improved the teachings of Candelore by using a one-to-one function for encryption in order to be able to detect changes in the data.

Prior Art Made of Record

29. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- a. Sprunk et al. (US Patent 5,754,659) discloses a system and method for generating cryptographic signatures using hash keys.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sarah Su whose telephone number is (571) 270-3835. The examiner can normally be reached on Monday through Friday 7:30AM-5:00PM EST..

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz Sheikh can be reached on (571) 272-3795. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Sarah Su/
Examiner, Art Unit 2131

/Christopher A. Revak/
Primary Examiner, Art Unit 2131